

REGIONAL TRANSIT FRAMEWORK STUDY UPDATE PROPOSED PHASE 1 CORRIDORS

July 13, 2017

DEVELOPMENT OF PHASE 1 CORRIDORS

Market Analysis



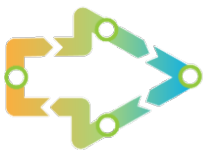
Consultation with Technical Workgroup



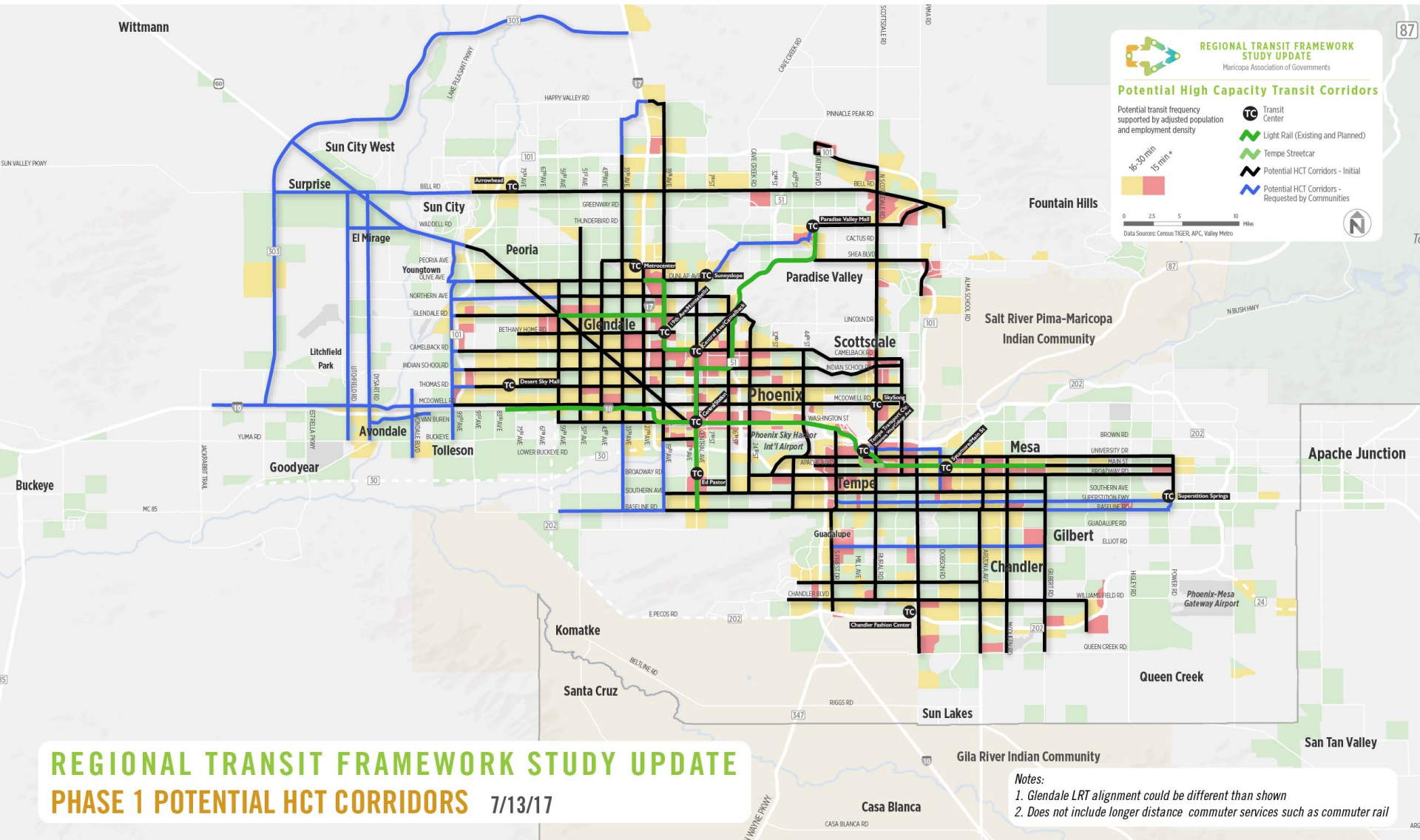
Addition of Corridors Requested by Workgroup

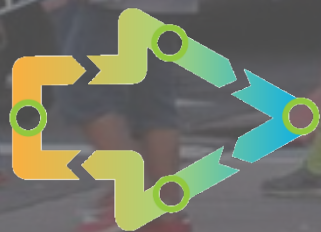


Final List of Potential Corridors



PROPOSED PHASE 1 CORRIDORS

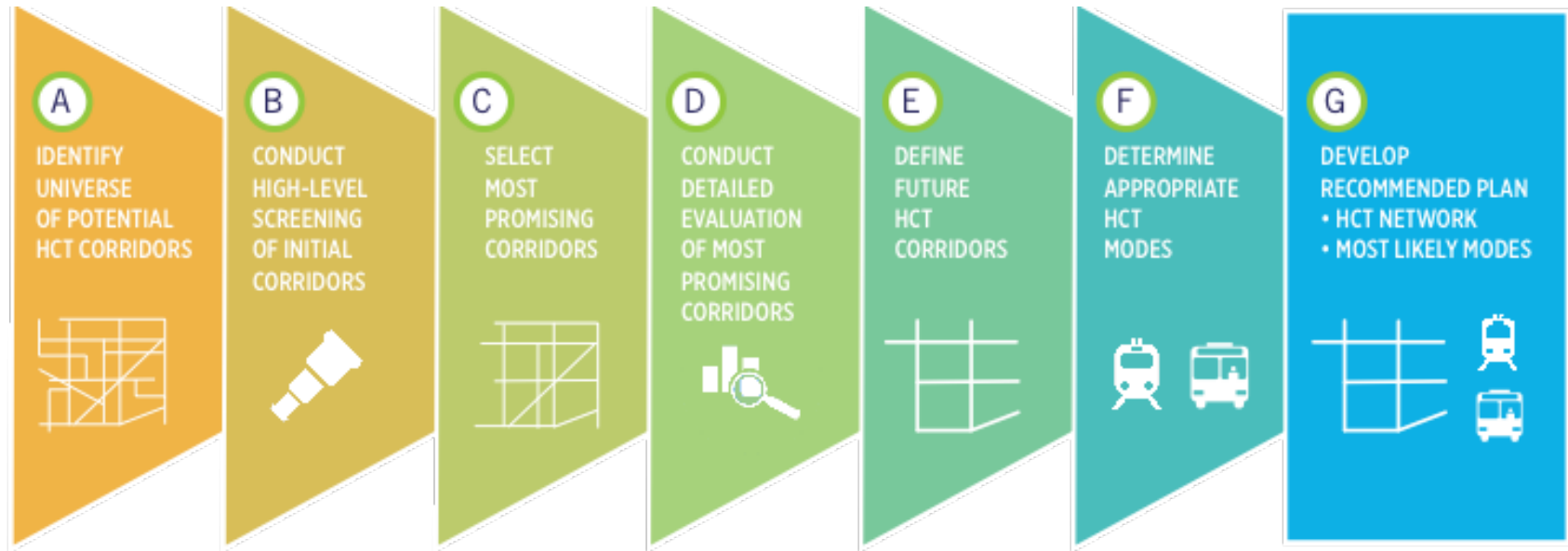




REGIONAL TRANSIT FRAMEWORK STUDY UPDATE DRAFT EVALUATION FRAMEWORK

July 13, 2017

PROPOSED EVALUATION FRAMEWORK



1. Identify Universe of Potential HCT Corridors
2. Conduct High-Level Screening of Initial Corridors
3. Select Most Promising Corridors
4. Conduct Detailed Evaluation of Short-Listed Corridors
5. Identify HCT Corridors
6. Determine HCT Routes and Potential Modes
7. Develop Recommended Plan

EVALUATION FRAMEWORK PRINCIPLES

Simpler is better than complicated

Focus on what's most important – not everything everyone can think of

Use measures that highlight differences

Provide level of detail necessary to make informed decisions



START WITH GOALS

Develop goals that reflect themes

ENHANCE

Make Transit Service More Compelling

CONNECT

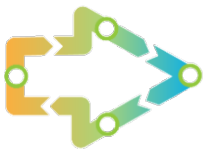
Develop an HCT Network that Enhances Regional Connectivity

DEVELOP

Support Local and Regional Economic Development Goals

SUSTAIN

Develop Sustainable Solutions



START WITH GOALS

Develop specific objectives for each goal

ENHANCE

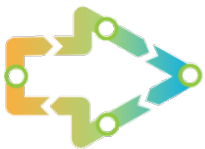
Make Transit Service More Compelling

- Provide HCT in the region's highest demand residential and employment locations
- Provide HCT service to major activity centers

CONNECT

Develop an HCT Network that Enhances Regional Connectivity

- Maximize connections with other transit services
- Provide service to areas with strong pedestrian connectivity and access



START WITH GOALS

Develop specific objectives for each goal

DEVELOP

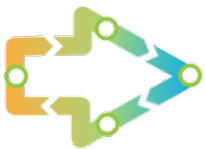
Support Local and Regional Economic Development Goals

- Provide service to areas that have or will have HCT-supportive development
- Provide service to areas with transit-supportive zoning and policies

SUSTAIN

Develop Sustainable Solutions

- Develop a more balanced transportation system
- Develop cost-effective, implementable transit solutions



SCREENING AND EVALUATION CRITERIA

Phase 1 Criteria: Less detailed in order to screen large number of corridors to determine those with highest potential

Phase 2 Criteria: Sufficiently detailed to develop the new plan

ENHANCE

Make Transit Service More Compelling

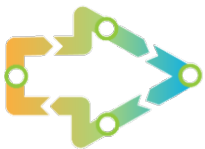
→ Provide HCT in the region's highest demand residential and employment locations

Phase 1 Criteria

Underlying transit demand within ½ mile (using market analysis methodology)

Phase 2 Criteria

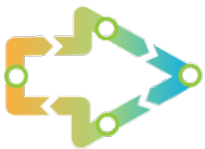
Projected ridership
New transit trips



SCREENING AND EVALUATION CRITERIA

ENHANCE Make Transit Service More Compelling

Objective	Initial Screening Measure	Final Evaluation Measure
Provide HCT in the region's highest demand residential and employment locations	<ul style="list-style-type: none">• 2040 composite transit demand within ½ mile (using methodology described in market analysis)	<ul style="list-style-type: none">• Total projected ridership• Ridership to and from low-income neighborhoods• New transit trips
Provide HCT service to major activity centers	<ul style="list-style-type: none">• Number of students at high schools within ½ mile• Number of students at universities and colleges within ½ mile• Number of hospital beds at major medical facilities within ½ mile	<ul style="list-style-type: none">• Not used, as impacts reflected in projected ridership

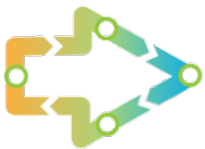


SCREENING AND EVALUATION CRITERIA

CONNECT

Develop an HCT Network that Enhances Regional Connectivity

Objective	Initial Screening Measure	Final Evaluation Measure
Maximize connections with other transit services	<ul style="list-style-type: none">• Number of connections with currently planned HCT services• Number of connections with potential new HCT services (top 1/3 of universe of potential lines in terms of underlying transit demand)• Number of connections to transit centers and other transit services (current and planned)	<ul style="list-style-type: none">• Number of connections with currently planned HCT services• Number of connections with potential new HCT services (top 1/2 of universe of potential lines in terms of projected ridership)• Number of connections to transit centers and other transit services (current and planned)
Provide service to areas with strong pedestrian connectivity and access	<ul style="list-style-type: none">• Not used in initial screening	<ul style="list-style-type: none">• Intersection density per square mile



SCREENING AND EVALUATION CRITERIA

DEVELOP

Support Local and Regional Economic Development Goals

Objective	Initial Screening Measure	Final Evaluation Measure
Provide service to areas that have or will have HCT-supportive development	<ul style="list-style-type: none">• Mix of residents and jobs• Qualitative assessment based on review of local plans	<ul style="list-style-type: none">• Mix of residents and jobs• Qualitative assessment based on review of local plans
Provide service to areas with transit-supportive zoning and policies	<ul style="list-style-type: none">• Degree to which adopted local plans require or enable transit supportive development	<ul style="list-style-type: none">• Degree to which adopted local plans require or enable transit supportive development

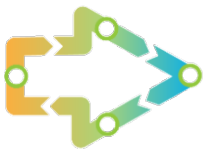


SCREENING AND EVALUATION CRITERIA

SUSTAIN

Develop Sustainable Solutions

Goal/Objective	Initial Screening Measure	Final Evaluation Measure
Develop a more balanced transportation system	<ul style="list-style-type: none">• Not used in initial screening	<ul style="list-style-type: none">• Increase in transit mode split in corridor• Reduction in SOV mode share in corridor• Increase in-person throughput in corridor
Develop cost-effective, implementable transit solutions	<ul style="list-style-type: none">• Not used in initial screening	<ul style="list-style-type: none">• Operating cost per passenger• Annualized capital cost per passenger• Passengers per revenue mile

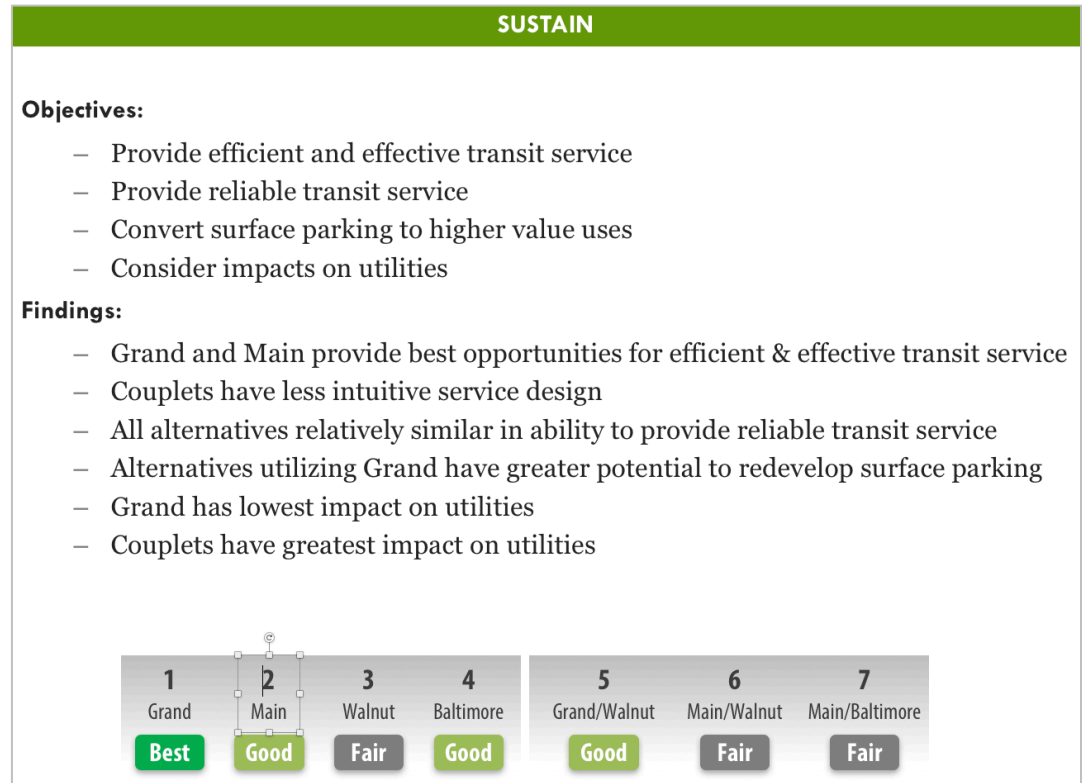


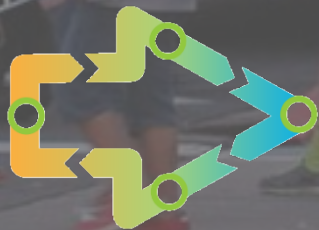
EXAMPLE PRESENTATION OF RESULTS

Screening criteria will be used to develop ratings of how well each corridor would achieve the goals and objectives

Ratings will be presented in terms of Best, Good, Fair, and Poor, and will represent relative differences

Kansas City Streetcar Example





REGIONAL TRANSIT FRAMEWORK STUDY VISUALIZING POPULATION AND EMPLOYMENT DENSITIES

July 13, 2017

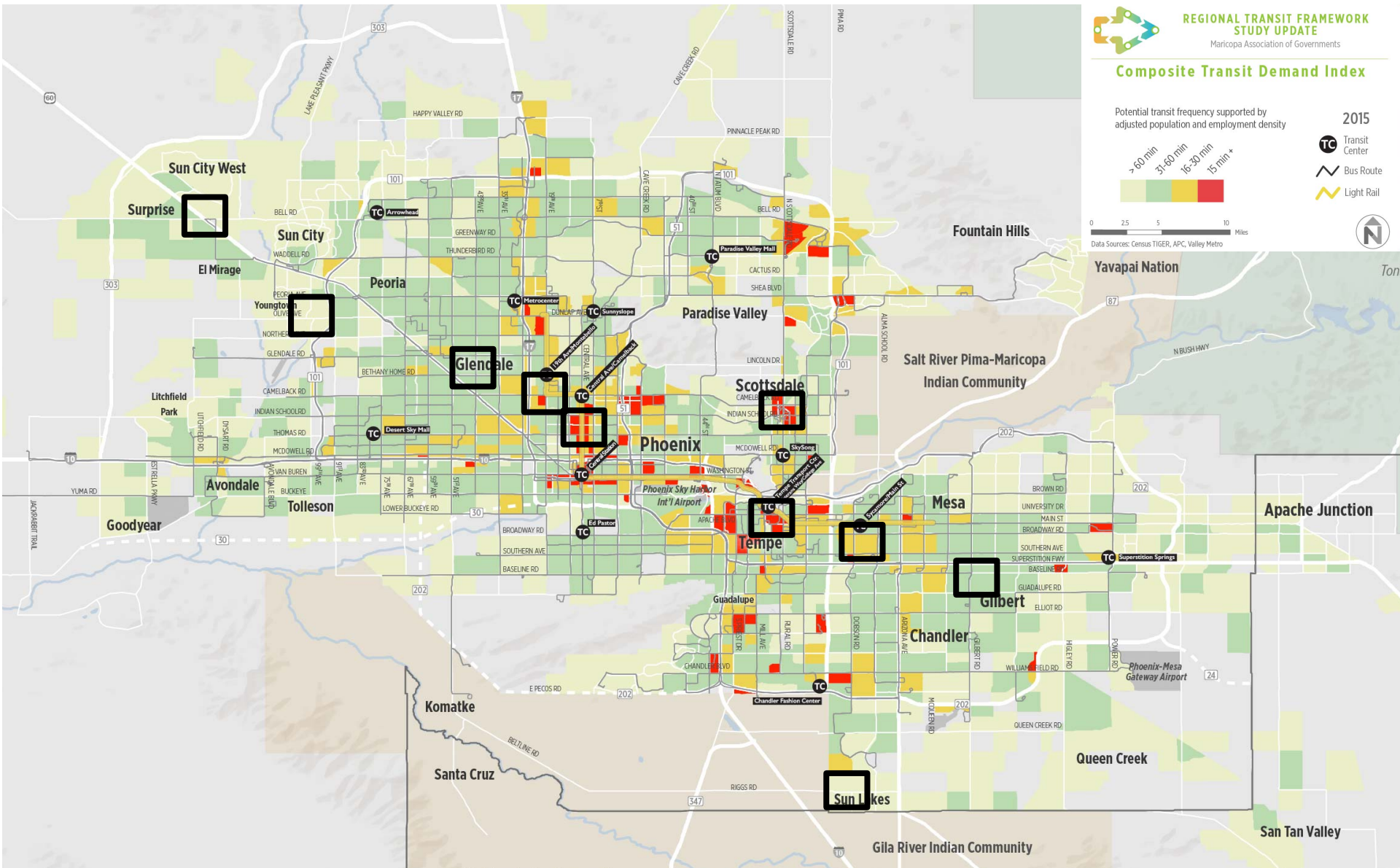
TRANSIT DEMAND AS A FUNCTION OF DENSITY

Population and employment densities provide strongest indication of transit demand

Transit Frequency (minutes)		Population Density (residents/acre)	Employment Density (jobs/acre)
	<= 15 min	>32	>16
	16 – 30 min	16 - 32	8 - 16
	31 - 60 min	8 - 16	4 - 8
	> 60 min	< 8	< 4

HCT requires demand for service every 15 minutes or better or many contiguous areas with demand for service every 16 to 30 minutes

WHAT DO THESE DENSITIES LOOK LIKE?



LAND USES SUPPORTIVE OF HCT

Every 15 minutes or better

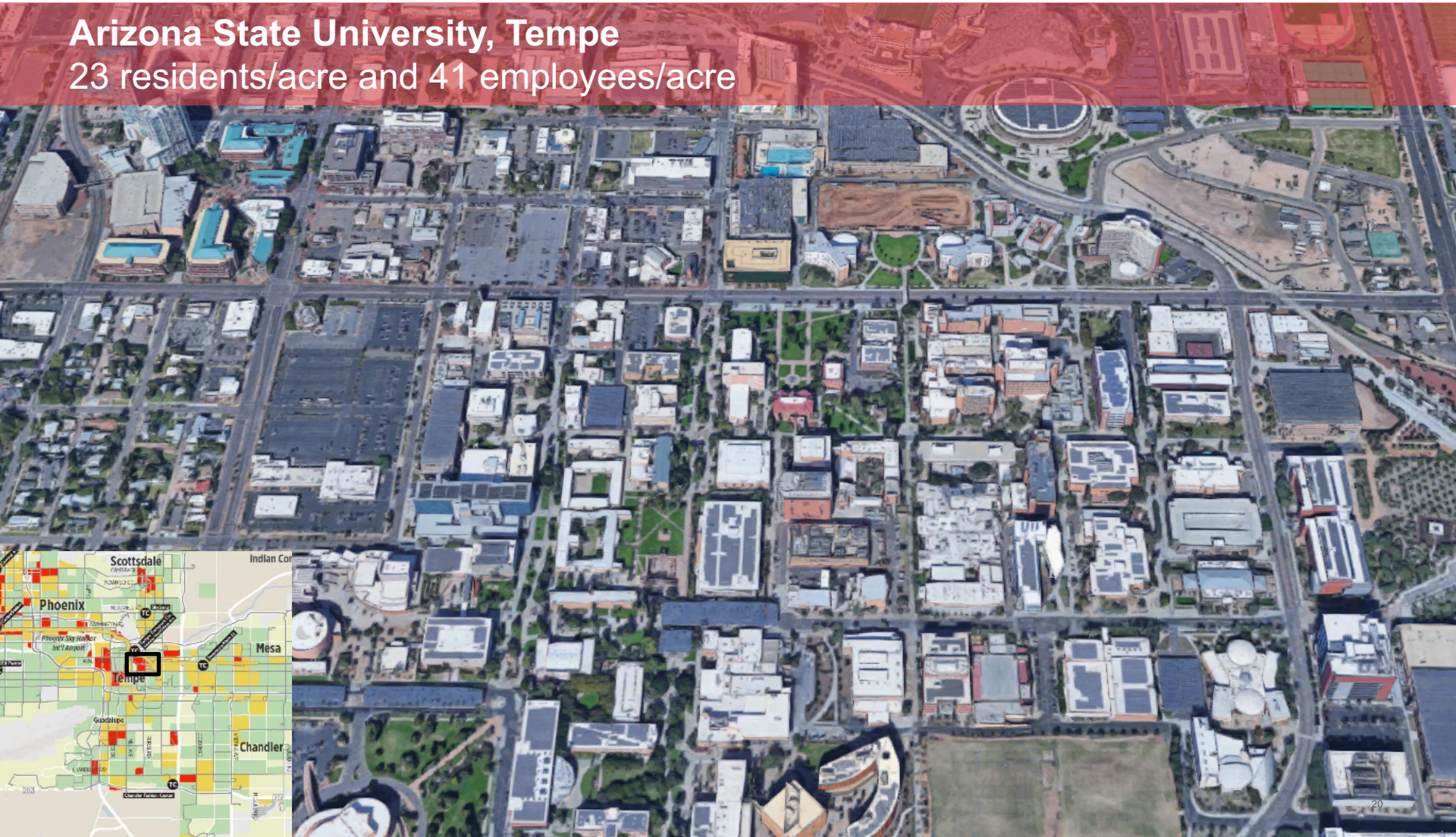
Central Ave & Thomas Rd, Phoenix
5 residents/acre and 59 employees/acre



LAND USES SUPPORTIVE OF HCT

Every 15 minutes or better

Arizona State University, Tempe
23 residents/acre and 41 employees/acre



LAND USES SUPPORTIVE OF HCT

Every 15 minutes or better

Downtown Scottsdale

8 residents/acre and 26 employees/acre



LAND USES POTENTIALLY SUPPORTIVE OF HCT

Every 16-30 minutes

South Dobson Rd, Mesa

19 residents/acre and 3 employees/acre



LAND USES POTENTIALLY SUPPORTIVE OF HCT

Every 16-30 minutes

Camelback Rd & 19th Ave, Phoenix
16 residents/acre and 4 employees/acre



LAND USES SUPPORTIVE OF ALL DAY LOCAL TRANSIT

Every 31-60 minutes

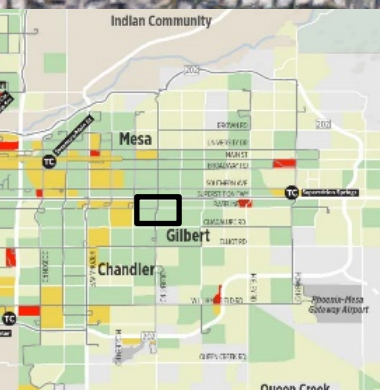
Glendale Ave & 43rd Ave, Glendale
12 residents/acre and 2 employees/acre



LAND USES SUPPORTIVE OF ALL DAY LOCAL TRANSIT

Every 31-60 minutes

Gilbert Ave & Baseline Ave, Mesa
8 residents/acre and 3 employees/acre



LAND USES SUPPORTIVE OF LIMITED TRANSIT

Grand Ave & Bell Rd, Surprise

6 residents/acre and 2 employee/acre



LAND USES SUPPORTIVE OF LIMITED TRANSIT

99th Ave, Peoria

6 residents/acre and <1 employee/acre



LAND USES SUPPORTIVE OF LIMITED TRANSIT

Sun Lakes

4 residents/acre and <1 employee/acre

